SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product category

Chemical products (excludes biocidal products)
PC-TEC-24 Welding, soldering, and flux products

Trade name/designation Weller ELECTRONIC FLUX

Identification on the label/Trade name

label designation/Name of product
ELECTRONIC FLUX, No. T0051383199 [UFI: 2EP8-U0A9-S00U-EXCQ]

Other means of identification
SDS-09

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Sector of uses [SU]
FLUXING AGENT / FLUSSMITTEL / ELECTRONIC FLUX

1.3 Details of the supplier of the safety data sheet

Supplier
Weller Tools GmbH
Carl-Benz-Straße 2
Germany-74354 Besigheim
Telephone: +49 7143 580-0
Telefax: +49 7143 580-108
E-mail: info@weller-tools.com
Department responsible for information: environmental department
Information telephone: +49 7143 580-101
Information telefax: +49 7143 580-108

1.4 Emergency telephone number

GIZ Mainz +49 6131 - 19240 (language - german, english, french)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards
Eye Irrit. 2

hazard statements for health hazards
H319 Causes serious eye irritation.

health hazards
STOT SE 3

hazard statements for health hazards
H336 May cause drowsiness or dizziness.

Physical hazards
Flam. Liq. 2

hazard statements for physical hazards
H225 Highly flammable liquid and vapour.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard components for labelling
Propan-2-ol

Hazard pictograms

GHS02 GHS07

Signal word
Danger

Hazard statements

Hazard statements for physical hazards
H225 Highly flammable liquid and vapour.

hazard statements for health hazards
H336 May cause drowsiness or dizziness.

Precautionary statements

General:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Prevention
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

Response:
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a doctor if you feel unwell.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an appropriate recycling or disposal facility.

Special rules for supplemental label elements for certain mixtures
EUH210 Safety data sheet available on request.
Labelling of packages where the contents do not exceed 125 ml
Content < 125 ml

Special rules on packaging
Tactile warning according to EN/ISO 11683.

2.3 Other hazards
No data available

SECTION 3: Composition / information on ingredients

3.1/3.2 Substances/Mixtures

Description
Mixture / Mélange / Gemisch

Hazardous ingredients

propan-2-ol >=50 - <=100 %
CAS 67-63-0
EC 200-661-7
INDEX 603-117-00-0
REACHNo 01-2119457558-25
Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336

2-methylpentane-2,4-diol <2,5 %
CAS 107-41-5
EC 203-489-0
INDEX 603-053-00-3
REACHNo 01-2119539582-35
Eye Irrit. 2, H319 / Skin Irrit. 2, H315

Succinic-acid / Bernsteinsäure <2,5 %
CAS 110-15-6
EC 203-740-4
Eye Dam. 1, H318

SECTION 4: First aid measures

4.1 Description of first aid measures

Following inhalation
Remove casualty to fresh air and keep warm and at rest.

Following skin contact
In case of skin irritation, seek medical treatment. After contact with skin, wash immediately with plenty of water and soap.

After eye contact
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Consult an ophthalmologist.

Following ingestion
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed
No data available

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide (CO2). Extinguishing powder. Dry sand. alcohol resistant foam.

Unsuitable extinguishing media
High power water jet.
Water

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
Carbon monoxide

5.3 Advice for firefighters

Special protective equipment for firefighters
In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures
Remove persons to safety.

Personal precautions
Use personal protection equipment.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up:
Sand
Universal binder

For cleaning up

Unsuitable material for diluting or neutralising:
Water

6.4 Reference to other sections
Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Advices on safe handling
All work processes must always be designed so that the following is excluded:
Generation/formation of aerosols
If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Measures to prevent fire
Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Keep in a cool, well-ventilated place.

Hints on joint storage

Materials to avoid
Keep away from:
Combustible substance
Food and feedingstuffs

Storage class
Flammable liquids

Storage class
Storage class / Lagerklasse 3

Further information on storage conditions
Protect against:
Heat
UV-radiation/sunlight
Frost

storage temperature
Value >=5 - <=20 °C

7.3 Specific end use(s)
No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	LTV	STV	remark
67-63-0	Propan-2-ol	999 mg/m³ 400 ppm	1250 mg/m³ 500 ppm	Great Britain (UK)
107-41-5	2-Methylpentane-2,4-diol	123 mg/m³ 25 ppm	123 mg/m³ 25 ppm	Great Britain (UK)

LTV = long-term occupational exposure limit value
STV = short-term occupational exposure limit value
source: GESTIS International Limit Values (http://limitvalue.ifa.dguv.de/)
Monitoring and observation processes: GESTIS Analytical Methods (http://amcaw.ifa.dguv.de/)

biological limit values

Limit value type (country of origin):
BLV (DE)
Substance name propan-2-ol
CAS No. 67-63-0
EC No. 200-661-7

parameter
Acetone
Limit value 25 mg/L

Test material:
Whole blood (B)

Time of sampling:
Expositionsende / Schichtende _ exposure end / shift end

source
TRGS 903

Substance name propan-2-ol
CAS No. 67-63-0
EC No. 200-661-7

parameter
Acetone
Limit value 25 mg/L

Test material:
Urine (U)

Time of sampling:
Expositionsende / Schichtende _ exposure end / shift end

source
TRGS 903

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
Reduce exposure to fume by keeping operating temperatures as low as possible taking into account occupational exposure limits and safe handling temperatures (see Section 7). Where practicable handle within an enclosed process. Alternatively local exhaust ventilation should be considered.

Personal protection equipment

Eye/face protection

Suitable eye protection:
goggles

Skin protection

Suitable gloves type
Disposable gloves

Suitable material:
NBR (Nitrile rubber)

Thickness of the glove material >0,33 mm

Recommended glove articles

DIN-/EN-Norms
EN ISO 374

remark
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection:

Suitable protective clothing:
lab coat

Respiratory protection

remark
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state
liquid

Colour
amber coloured

Odour
Isopropyl alcohol.

		parameter	Method - source - remark
Evaporation rate			not determined
Melting point/freezing point			not determined
Boiling point or initial boiling point and boiling range	ca.82 °C		
flammability			not determined
Upper explosion limit	12 Vol-%		
lower explosion limit	2 Vol-%		
Flash point (°C)	13 °C		
Auto-ignition temperature			not determined
Decomposition temperature			not determined
pH	ca.3,9		
Soluble (g/L) in			not determined
Fat solubility			not determined
Water solubility			partially miscible
Partition coefficient: n-octanol/water			not determined
Vapour pressure	43 hPa		
Vapour density			not determined
Relative density	0,81 g/cm³	Temperature 20 °C	

		parameter	Method - source - remark
Auto-ignition temperature	300 °C		
particle characteristics			not determined

9.2 Other information

Solvent content

Value 85 %

remark

VOC (EU) 85%

Solid content

Value 13,1 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3 Possibility of hazardous reactions

In use, may form flammable/explosive vapour-air mixture.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

Materials to avoid

This information is not available.

10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute dermal toxicity

ingredient propan-2-ol

Acute dermal toxicity 12,8 mg/kg

Effective dose

LD50:

Species:

Rabbit

Acute inhalation toxicity (vapour)

ingredient propan-2-ol

Acute inhalation toxicity (vapour) 30 mg/L

Effective dose

LC50:

Exposure time 4 h

Species:

Rat

Acute oral toxicity 5,045 mg/kg

Effective dose

LD50:

Species:

Rat

skin corrosion/irritation

Assessment/classification

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Assessment/classification

strongly irritant.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Overall Assessment on CMR properties

Due to missing data no statement can be made whether the substance fullfills the criteria of CMR categories 1 or 2.

Germ cell mutagenicity

Assessment/classification

Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment/classification

Based on available data, the classification criteria are not met.

STOT-single exposure

STOT SE 3

Narcotic effects

Assessment/classification

May cause drowsiness or dizziness.

STOT-repeated exposure

STOT RE 1 and 2

Inhalative specific target organ toxicity (repeated exposure)

Assessment/classification

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

No information available.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

not applicable

12.6 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

remark

Dispose of waste according to "Kreislaufwirtschaftsgesetz (KrWG)". Recycle according to official regulations.

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste code product 140603
hazardous waste Yes.

Waste name

other solvents and solvent mixtures

Properties of waste which render it hazardous

HP3 Flammable
HP4 Irritant — skin irritation and eye damage
HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

After intended use

Waste code packaging 150102
hazardous waste No

Waste name

plastic packaging

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN-No.	1219	1219	1219
14.2 Proper Shipping Name	ISOPROPYL ALCOHOL	ISOPROPYL ALCOHOL	Isopropyl alcohol

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.3 Class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 ENVIRONMENTALLY HAZARDOUS	No	No	No
14.6 Special precautions for user	not applicable	not applicable	not applicable
14.7 Maritime transport in bulk according to IMO instruments	not applicable	not applicable	not applicable

Additional information - Land transport (ADR/RID)

Hazard label(s) 3
Classification code F1
Limited quantity (LQ) 1 L
Hazard identification number (Kemler No.) 33
tunnel restriction code D/E
transport category 2

remark
1219 ISOPROPANOL (ISOPROPYLALKOHOL), Gemisch
1219 ISOPROPANOL (ISOPROPYL ALCOHOL), mixture

Additional information - Sea transport (IMDG)

Marine pollutant No

remark
Klasse 3 Entzündbare flüssige Stoffe
Class 3 Flammable liquids
EMS-No.: F-E, S-D

Additional information - Air transport (ICAO-TI / IATA-DGR)

Limited quantity (LQ) 1
remark Warning: Flammable liquids; Kemler: 33; Stowage Category: B

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Authorisations and/or restrictions on use

Restrictions of occupation
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations (EU)

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

Hazard categories
P5c Flammable liquids

Named dangerous substances
none

15.2 Chemical Safety Assessment
For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organisation
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Indication of changes

20160608: matching section 1, 8, 15 to Regulations 453/2010/EC, 830/2015/EU, 2012/18/EU
20170404: section 13, adaption to Regulation 2016/918/EU
20190503: section 1, 8.1
20210223: section1 - UFI, 2.2 (<125ml), 8, 11, 13, 14, 16

Relevant R-, H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.